

Claims

1. A carrier having a structure selected from the group consisting of monolithic honeycomb, pellet, bead, ring and foam, characterized in that alumina is disposed in the carrier and/or on the cell wall surface of the carrier.
2. A carrier according to Claim 1, wherein, in the carrier and/or on the cell wall surface of the carrier is further disposed a substance liable to react with an alkali metal and/or an alkaline earth metal both used as a catalyst component, and/or an alkali metal and/or an alkaline earth metal.
3. A carrier according to Claim 2, wherein the substance liable to react with an alkali metal and/or an alkaline earth metal is silica.
4. A carrier according to Claim 2 or 3, wherein the silica is disposed directly on the carrier and alumina is disposed thereon.
5. A carrier according to any of Claims 1 to 4, wherein the carrier has a honeycomb structure.
6. A carrier according to any of Claims 1 to 5, wherein the carrier contains cordierite as a major component.
7. A carrier according to any of Claims 1 to 6, wherein the alumina contains at least one kind selected from the group consisting of γ -alumina, δ -alumina, η -alumina, θ -alumina, α -alumina and amorphous alumina.
8. A carrier according to Claim 7, wherein the alumina contains α -alumina as a major component.
9. A catalyst body comprising a carrier set forth in any of Claims 1 to 8 and a catalytic material carrier on the carrier.

10. A catalyst body according to Claim 9, wherein the catalytic material contains an alkali metal and/or an alkaline earth metal.

11. A method for producing a carrier having alumina coated thereon, characterized in that alumina is coated on a carrier to obtain a primary carrier having alumina coated thereon and then the obtained carrier is fired at least once.

12. A method for producing a carrier having alumina coated thereon according to Claim 11, wherein the primary carrier having alumina coated thereon is dried and then fired at least once.

13. A method for producing a carrier having alumina coated thereon according to Claim 11 or 12, wherein the primary carrier having alumina coated thereon is fired at least once at a temperature of 200°C or higher.

14. A method for producing a carrier having alumina coated thereon according to any of Claims 11 to 13, wherein the primary carrier having alumina coated thereon is fired at least once at a temperature of 1,300°C or lower.

15. A method for producing a carrier having alumina coated thereon according to any of Claims 1 to 14, wherein as the alumina to be coated, there is used any one kind selected from an alumina powder, an alumina sol, and a combination of an alumina powder and an alumina sol.

16. A method for producing a carrier having alumina coated thereon according to any of Claims 11 to 13, wherein as the alumina to be coated, an alumina sol is used.

17. A method for producing a carrier having alumina coated thereon according to any of Claims 11 to 16, wherein the method comprises a step of coating a substance liable to

react with an alkali metal and/or an alkaline earth metal both used as a catalyst component, and/or an alkali metal and/or an alkaline earth metal.

18. A method for producing a carrier having alumina coated thereon according to Claim 17, wherein as the substance
5 liable to react with an alkali metal and/or an alkaline earth metal both used as a catalyst component, and/or the alkali metal and/or the alkaline earth metal, there is used a sol of a substance liable to react with an alkali metal and/or an
10 alkaline earth metal both used as a catalyst component, and/or a sol of an alkali metal and/or an alkaline earth metal.

19. A method for producing a carrier having alumina coated thereon according to Claim 17 or 18, wherein the sol of a
15 substance liable to react with an alkali metal and/or an alkaline earth metal both used as a catalyst component, and/or the sol of an alkali metal and/or an alkaline earth metal is a silica sol.

20. A method for producing a carrier having alumina coated thereon according to any of Claims 11 to 13, wherein the
20 firing is conducted twice.